

- 16 -

CLAIMS

1. A method for producing a layered material, wherein the method includes the steps of impregnating a substrate with a thermosetting resin and further impregnating or coating the so impregnated substrate with a dispersion comprising thermally expandable microspheres.
2. A method according to claim 1, wherein the method comprises expanding the microspheres.
3. A method according to any one of the claims 1-2 comprising:
 - bringing together the layered material with a second layer, thereby forming a layered assembly,
 - pressing and heating the assembly above the temperature at which the microspheres starts to expand at atmospheric pressure and,
 - releasing the pressure from the assembly, whereupon the microspheres expand.
4. A method according to any one of the claims 1-2, comprising the steps of:
 - joining the layered material onto a second layer followed by
 - heating at least the layered material without substantial pressing above the temperature at which the microspheres start to expand.

- 17 -

5. A method according to any one of the claims 1-4, wherein the layer comprising thermally expandable microspheres is an outermost layer of the layered material.
6. A method according to any one of the claims 1-5, wherein the layered material comprises a paper.
7. A method according to any one of the claims 1-6, wherein the layered material further comprises an upper decorative layer.
8. A method according to any one of the claims 1-7, wherein the layered material is a decorative laminate flooring material.
9. A method according to any one of the claims 1-7, wherein the layered material is a parquet flooring material.
10. A method according to one of the above claims wherein the thermally expandable microspheres are dispersed in a thermoplastic polymer.
11. A method according to claim 10, wherein the thermoplastic polymer has a glass transition temperature between -100 °C and + 10°C, preferably between -80 °C and -20°C.
12. A layered material comprising a substrate impregnated with a thermosetting and a coating layer comprising expanded microspheres.

13. A layered material according to claim 12 wherein the microspheres are dispersed within a thermoplastic polymer.
14. A layered material according to claim 12 or 13 wherein the thermoplastic polymer has a glass transition temperature between -100°C and $+10^{\circ}\text{C}$, preferably between -80°C and -20°C .
15. A layered material obtainable by a method comprising impregnating a substrate with a thermosetting, coating or impregnating the impregnated substrate with thermally expandable microspheres and heating the so impregnated and coated substrate above a temperature above the microspheres start to expand.
16. A layered material obtainable according to claim 15 wherein the thermally expandable microspheres are dispersed in a continuous phase comprising a thermoplastic polymer preferably having a glass transition temperature between -100°C and $+10^{\circ}\text{C}$, preferably between -80°C and -20°C
17. A layered material obtainable according to claim 15 or 16 wherein the heating is conducted under substantial pressure.
18. A layered material according to any of the claims 15-17, wherein the disperse phase comprises a polyurethane.
19. A layered material according to any of the claims 15-18, wherein the substrate forms an outermost layer.

- 19 -

20. A layered material according to any one of the claims 15-19, which is a flooring material comprising an upper decorative layer, a carrying layer and a backing layer.
21. A layered material according to any of the claims 15-20, wherein the substrate is a paper.
22. Use of a layered material according to any of the claims 12-14 or 15-21 as a balancing backing layer.